

Office of Asst. Sec. for Housing, HUD

§ 3280.605

Performance Requirements for Pipe Applied Atmospheric Type Vacuum Breakers—ASSE 1001 (ASSE/ANSI-1990).

Performance Requirements for Hose Connection Vacuum Breakers—ASSE 1011-1981 (ANSI-1982).

Performance Requirements for Wall Hydrants, Frost Proof Automatic Draining, Anti-Backflow Types—ANSI/ASSE 1019-1978.

[58 FR 55013, Oct. 25, 1993, as amended at 70 FR 72048, Nov. 30, 2005]

EFFECTIVE DATE NOTE: At 78 FR 73985, Dec. 9, 2013, § 3280.604(b)(2) was amended as follows, effective June 6, 2014.

a. In the list under the undesignated heading “Plastic Pipe and Fittings”, add reference standards for “Standard Specification for Crosslinked Polyethylene (PEX) Tubing” and “Standard Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems,” immediately before the undesignated heading “Miscellaneous”;

b. In the list under the undesignated heading “Miscellaneous”, revise the reference standard for “Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings” and “Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems”;

c. In the undesignated heading “Plumbing Fixtures”, revise the reference standard for “Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings”; and

d. In the undesignated heading “Plumbing Fixtures”, add a reference standard for “Performance Requirements for Automatic Compensating Values for Individual Shower and Tub/Shower Combinations” at the end of the list.

For the convenience of the user, the added and revised text is set forth as follows:

§ 3280.604 Materials.

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(b) * * *

(2) * * *

PLASTIC PIPE AND FITTINGS

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Standard Specification for Crosslinked Polyethylene (PEX) Tubing—ASTM F876-10 (incorporated by reference, see § 3280.4).

Standard Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems—ASTM F877-07 (incorporated by reference, see § 3280.4).

MISCELLANEOUS

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Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings, ASTM C564-97 (incorporated by reference, see § 3280.4).

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Relief Valves for Hot Water Supply Systems, ANSI Z21.22-1999 (incorporated by reference, see § 3280.4).

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Standard for Safety Glazing Materials used in Buildings—Safety Performance Specifications and Methods of Test, ANSI Z97.1-2004 (incorporated by reference, see § 3280.4).

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PLUMBING FIXTURES

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Performance Requirements for Automatic Compensating Values for Individual Shower and Tub/Shower Combinations, approved January 2005 ASSE 1016-2005 (incorporated by reference, see § 3280.4).

§ 3280.605 Joints and connections.

(a) *Tightness.* Joints and connections in the plumbing system shall be gas-tight and watertight for the pressures required under testing procedures.

(1) *Assembling of pipe.* All joints and connections shall be correctly assembled for tightness. Pipe threads shall be fully engaged with the threads of the fitting. Plastic pipe and copper tubing shall be inserted to the full depth of the solder cup or welding sockets of each fitting. Pipe threads and slip joints shall not be wrapped with string, paper, putty, or similar fillers.

(2) *Threaded joints.* Threads for screw pipe and fittings shall conform to the approved or listed standard. Pipe ends shall be reamed out to size of bore. All burrs, chips, cutting oil and foreign matter shall be removed. Pipe joint cement or thread lubricant shall be of approved type and applied to male threads only.

(3) *Solder joints.* Solder joints for tubing shall be made with approved or listed solder type fittings. Surfaces to be soldered shall be cleaned bright. The joints shall be properly fluxed with

noncorrosive paste type flux and, for manufactured homes to be connected to a public water system, made with solder having not more than 0.2 percent lead.

(4) *Plastic pipe, fittings and joints.* Plastic pipe and fittings shall be joined by installation methods recommended by the manufacturer or in accordance with the provisions of a recognized, approved, or listed standard.

(5) *Union joints.* Metal unions in water piping shall have metal-to-metal ground seats.

(6) *Flared joints.* Flared joints for soft-copper water tubing shall be made with approved or listed fittings. The tubing shall be expanded with a proper flaring tool.

(7) *Cast iron soil pipe joints.* Approved or listed cast iron pipe may be joined as follows:

(i) Approved or listed hubless pipe as per the manufacturer's recommendation.

(ii) Hub and plain-end soil pipe may be joined by compression fittings per the manufacturer's recommendation.

[40 FR 58752, Dec. 18, 1975. Redesignated at 44 FR 20679, Apr. 6, 1979, as amended at 53 FR 23611, June 23, 1988]

EFFECTIVE DATE NOTE: At 78 FR 73985, Dec. 9, 2013, § 3280.605 was amended as follows, effective June 6, 2014.

a. Redesignate paragraphs (a)(1) through (7) as paragraphs (b) through (h);

b. Redesignate paragraphs (i) and (ii) of newly redesignated paragraph (h) as paragraphs (h)(1) and (2); and

c. Revise newly redesignated paragraph (h)(1).

For the convenience of the user, the revised text is set forth as follows:

§ 3280.605 Joints and connections.

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(h) * * *

(1) Approved or listed hub-less pipe and fittings must be permitted to be joined with listed couplings or adapters, per the manufacturer's recommendations.

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§ 3280.606 Traps and cleanouts.

(a) *Traps—(1) Traps required.* Each plumbing fixture, except listed toilets, shall be separately trapped by approved

water seal “P” traps. All traps shall be effectively vented.

(2) *Dual fixtures.* A two-compartment sink, two single sinks, two lavatories, or a single sink and a single lavatory with waste outlets not more than 30 inches apart and in the same room and flood level rims at the same level may be connected to one “P” trap and may be considered as a single fixture for the purpose of drainage and vent requirements.

(3) *Prohibited traps.* A trap which depends for its seal upon concealed interior partitions shall not be used. Full “S” traps, bell traps, drum traps, crown-vented traps, and running traps are prohibited. Fixtures shall not be double-trapped.

(4) *Material and design.* Each trap shall be self-cleaning with a smooth and uniform interior waterway. Traps shall be manufactured of cast iron, cast brass, or drawn brass tubing of not less than No. 20 Brown and Sharpe gage, or approved or listed plastic, or other approved or listed material. Union joints for a trap shall be beaded to provide a shoulder for the union nut. Each trap shall have the manufacturer's name stamped or cast in the body of the trap, and each tubing trap shall show the gage of the tubing.

(5) *Trap seal.* Each “P” trap shall have a water seal of not less than 2 inches and not more than 4 inches and shall be set true to its seal.

(6) *Size.* Traps shall be not less than 1¼ inches in diameter. A trap shall not be larger than the waste pipe to which it is connected.

(7) *Location.* Each trap shall be located as close to its vent and to its fixture outlet as structural conditions will permit.

(8) *Length of tailpiece.* The vertical distance from a trap to the fixture outlet shall not exceed 24 inches.

(9) *Installation.* (i) *Grade of trap arm.* The piping between a “P” trap and the fixture tee or the vented waste line shall be graded ¼ inch per foot towards the vent and in no event shall have a slope greater than its diameter. The vent opening at fixture tees shall not be below the weir of the “P” trap outlet.

(ii) *Trap arm offset.* The piping between the “P” trap and vent may